

What is claimed is:

1. A sheet discharging apparatus including a conveying means for conveying a sheet on a conveying path, and a high speed discharging means for discharging through an exit of said conveying path, said high speed discharging means being disposed at said exit, and a discharging speed of said high speed discharging means being higher than a conveying speed of said conveying means, said high speed discharging means comprising:
 - a drive shaft;
 - a drive roller rotatably and coaxially attached to said drive shaft, said drive roller being unshiftable in an axial direction of said drive shaft;
 - a frictional connection unit for firmly combining said drive roller and said drive shaft with frictional force; and
 - a nip roller, idly rotatable, said nip roller nipping said sheet with said drive roller to discharge out said sheet.
2. A sheet discharging apparatus as claimed in claim 1, wherein said frictional connection unit further comprises:
 - a fixing member fixed to said drive shaft;
 - a friction member for contacting an end surface of said drive roller; and
 - a biasing member provided between said fixing member and said friction member, said biasing member pressing said friction member to said end surface of said drive roller.
3. A sheet discharging apparatus as claimed in claim 2, wherein said biasing member is a coil spring having a first end and a second end, said first end is fixed to said fixing member, and said second end is fixed to said friction member.

4. A sheet discharging apparatus as claimed in claim 3,
wherein said friction member is provided with a contact portion
for contacting said drive roller, said contact portion is
5 chamfered to have linear inclination or arc-shape to an axial
direction of said drive roller.

5. A sheet discharging apparatus as claimed in claim 4,
wherein said sheet comprises plural sheets, which are conveyed
10 on said path in a situation that said sheets are positioned in
zigzag among plural rows, and sequentially arranged in a single
row.

6. A sheet discharging apparatus as claimed in claim 5,
15 wherein said drive roller comprises plural drive rollers
disposed at an interval in the axial direction of said drive
shaft.

7. A sheet discharging apparatus as claimed in claim 6,
20 wherein said nip roller comprises plural nip rollers disposed
at an interval on a shaft.

8. A sheet discharging apparatus as claimed in claim 7,
wherein each of said drive rollers is positioned to said drive
25 shaft by a pair of E-rings, and each of said nip rollers is
positioned to said shaft by a pair of E-rings.

9. A sheet discharging apparatus as claimed in claim 7,
further comprising an endless belt disposed downstream from
30 said high speed discharging means, and said endless belt
receiving said sheet discharged with said high speed

discharging means.